

=> d 1-5 ti

L7 ANSWER 1 OF 5 AGRICOLA

TI Production of recombinant proteins in tobacco guttation fluid.

L7 ANSWER 2 OF 5 AGRICOLA

TI Genetic ablation of root cap cells in Arabidopsis.

L7 ANSWER 3 OF 5 AGRICOLA

TI CUT1, an Arabidopsis gene required for cuticular wax biosynthesis and pollen fertility, encodes a very-long-chain fatty acid condensing enzyme.

L7 ANSWER 4 OF 5 AGRICOLA

TI Use of **plant** roots for phytoremediation and molecular farming.

L7 ANSWER 5 OF 5 AGRICOLA

TI Fungal pathogens **secrete** an inhibitor protein that distinguishes isoforms of **plant** pathogenesis-related endo-beta-1,3-glucanases.

=> d so

L7 ANSWER 1 OF 5 AGRICOLA

SO Plant physiology, Nov 2000. Vol. 124, No. 3. p. 927-933

Publisher: Rockville, MD : American Society of Plant Physiologists, 1926-

CODEN: PLPHAY; ISSN: 0032-0889

=> logoff y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

9.42

9.63

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PASSWORD:

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NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment

NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
 saved answer sets no longer valid  
 NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
 NEWS 15 Jul 30 NETFIRST to be removed from STN  
 NEWS 16 Aug 08 CANCERLIT reload  
 NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
 NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
 NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
 now available on STN  
 NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
 NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
 NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
 NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
 NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
 NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
 NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
 NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
 NEWS 28 Oct 21 EVENTLINE has been reloaded  
 NEWS 29 Oct 24 BEILSTEIN adds new search fields  
 NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
 NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002  
 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT  
 NEWS 33 Nov 25 More calculated properties added to REGISTRY  
 NEWS 34 Dec 02 TIBKAT will be removed from STN  
 NEWS 35 Dec 04 CSA files on STN  
 NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date  
 NEWS 37 Dec 17 TOXCENTER enhanced with additional content  
 NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN  
 NEWS 39 Dec 30 ISMEC no longer available

NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,  
 CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 09:06:12 ON 30 DEC 2002

=> file agricola caplus biosis

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'AGRICOLA' ENTERED AT 09:06:59 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 09:06:59 ON 30 DEC 2002

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=> s booster and agrobacter?

L1 5 BOOSTER AND AGROBACTER?

=> dup rem l2

L2 IS NOT VALID HERE

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> dup rem l1

PROCESSING COMPLETED FOR L1

L2 3 DUP REM L1 (2 DUPLICATES REMOVED)

=> d 1-3 ti

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Expression of cholera toxin B subunit in transgenic plants and efficacy thereof in oral vaccines

L2 ANSWER 3 OF 3 AGRICOLA

DUPLICATE 1

TI Detection and enumeration of bacteria in soil by direct DNA extraction and polymerase chain reaction.

=> d ti

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**

=> d so

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

SO PCT Int. Appl., 58 pp.  
CODEN: PIXXD2

=> d pi

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919497	A1	19990422	WO 1997-IL328	19971010
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9745703	A1	19990503	AU 1997-45703	19971010
CA 2312008	AA	19990422	CA 1998-2312008	19981008
WO 9919498	A1	19990422	WO 1998-IL487	19981008
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				

DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,  
 KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,  
 MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,  
 TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9894572 A1 19990503 AU 1998-94572 19981008  
 EP 1021552 A1 20000726 EP 1998-947760 19981008  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

=> d 2 ab

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS  
 AB It is an object of the invention to provide immunomodulatory transmucosal carrier mols., such as cholera toxin B subunit protein (CTB), in food plants in order to improve the efficacy of microbial antigens expressed in said plants. It is desired to express CTB in plant tissues and to assess the efficacy of such plant material as an edible vaccine, either against cholera itself or as a carrier for another microbial antigen. A plant expression vector is provided that has the CTB gene fused to an endoplasmic reticulum retention signal (SEKDEL) adjacent to the mannopine synthase P2 promoter and has a bacterial luciferase reporter gene (lux F) linked to a P1 promoter. Mice orally immunized with transgenic potato showed induction of both serum and intestinal CTB-specific antibodies, and although mucosal antibody titers declined gradually after the last immunization, they were restored following an oral **booster** of said potato.

=> s booster and (transgenic or transform or transformation)  
 L3 100 BOOSTER AND (TRANSGENIC OR TRANSFORM OR TRANSFORMATION)

=> s l3 and plant?  
 L4 25 L3 AND PLANT?

=> dup rem l4  
 PROCESSING COMPLETED FOR L4  
 L5 19 DUP REM L4 (6 DUPLICATES REMOVED)

=> d 1-10 ti

L5 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
 TI Expression in **plants** and immunogenicity of **plant** virus-based experimental rabies vaccine

L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2002 ACS  
 TI Method for enhancing **plant** resistance to pathogens using **booster** sequence from potyvirus which encodes P1/HC-Pro polyprotein

L5 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2002 ACS  
 TI Targeted removal of attP-flanked selectable marker gene from a **transgenic plant** by inducing intrachromosomal homologous recombination

L5 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2002 ACS  
 TI Oral immunology using **plant** product containing a non-enteric pathogen antigen

L5 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2002 ACS  
 TI Oral immunology using **plant** product containing hepatitis surface antigen

L5 ANSWER 6 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Optimised method for the treatment and energetic upgrading of urban and industrial sludge purifying **plants**.

L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Methods for the genetic **transformation** of Lemnaceae with Agrobacterium tumefaciens

L5 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Expression of cholera toxin B subunit in **transgenic plants** and efficacy thereof in oral vaccines

L5 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Potyvirus **booster** sequence and helper component proteinase for enhancing expression of a foreign or endogenous gene product in **plants**

L5 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2  
TI Efficacy of a food **plant**-based oral cholera toxin B subunit vaccine

=> d 11-19 ti

L5 ANSWER 11 OF 19 AGRICOLA DUPLICATE 3  
TI The **transformation booster** sequence from Petunia hybrida is a retrotransposon derivative that binds to the nuclear scaffold.

L5 ANSWER 12 OF 19 AGRICOLA DUPLICATE 4  
TI Molecular analysis of **transgenic plants** generated by microprojectile bombardment: effect of petunia **transformation booster** sequence.

L5 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Comparison of homologous recombination frequencies in somatic cells of petunia and tobacco suggest two distinct recombination pathways

L5 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Molecular analysis of **transgenic plants** derived from transformations of protoplasts at various stages of the cell cycle

L5 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI Utilization of C4's and C5's of ethylene **plants** and FCC units through **transformation** to octane boosters for unleaded gasoline

L5 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2002 ACS  
TI A genomic DNA segment from Petunia hybrida leads to increased **transformation** frequencies and simple integration patterns

L5 ANSWER 17 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI CELLULAR AND HUMORAL IMMUNITY IN PARKINSONISM.

L5 ANSWER 18 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI THE ROLE OF MEMBRANE ASSOCIATION OF ANTIGENS IN INDUCTION OF CELL MEDIATED IMMUNITY TO VIRUSES.

L5 ANSWER 19 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI IMMUNOLOGIC STUDIES IN PHENYL KETONURIA.

=> logoff y  
COST IN U.S. DOLLARS

SINCE FILE TOTAL  
ENTRY SESSION

FULL ESTIMATED COST	21.08	21.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
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NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
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NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28	Oct 21	EVENTLINE has been reloaded
NEWS 29	Oct 24	BEILSTEIN adds new search fields
NEWS 30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 32	Nov 18	DKILIT has been renamed APOLLIT
NEWS 33	Nov 25	More calculated properties added to REGISTRY
NEWS 34	Dec 02	TIBKAT will be removed from STN
NEWS 35	Dec 04	CSA files on STN
NEWS 36	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 37	Dec 17	TOXCENTER enhanced with additional content
NEWS 38	Dec 17	Adis Clinical Trials Insight now available on STN

NEWS 39 Dec 30 ISMEC no longer available

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CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
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=> s feeder layer and agrobacter?

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FILE 'AGRICOLA' ENTERED AT 10:09:17 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 10:09:17 ON 30 DEC 2002

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=> s feeder layer and agrobacter?

L1 7 FEEDER LAYER AND AGROBACTER?

=> dup rem l1

PROCESSING COMPLETED FOR L1

L2 5 DUP REM L1 (2 DUPLICATES REMOVED)

=> d 1-5 ti

L2 ANSWER 1 OF 5 AGRICOLA DUPLICATE 1  
TI Factors affecting **Agrobacterium** tumefaciens-mediated transformation of peppermint.

L2 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Factors affecting **Agrobacterium** tumefaciens-mediated transformation of peppermint.

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2  
TI Factors influencing **Agrobacterium** tumefaciens mediated transformation and expression of kanamycin resistance in pickling cucumber

L2 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI GENETIC TRANSFORMATION OF POTATO SOLANUM-TUBEROSUM AN EFFICIENT METHOD TO OBTAIN TRANSGENIC PLANTS.

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS  
TI Genetic transformation of potato (Solanum tuberosum): an efficient method to obtain transgenic plants

=> d 5 so

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS  
S0 Plant Science (Shannon, Ireland) (1988), 59(2), 175-81  
CODEN: PLSCE4; ISSN: 0168-9452

=> d 5 ab

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS  
AB A quick procedure for efficient transformation of potato (cv. Desiree) is reported. Leaf disks were inoculated with **Agrobacterium** tumefaciens harboring a Ti plasmid-derived binary vector. Transformed shoots carrying the neomycin phosphotransferase gene were regenerating within 4 wk using a **feeder layer** technique on selective medium contg. kanamycin. Numerous transgenic plants appeared phenotypically normal and expressed the NPT II gene. Apparently, culture conditions are fundamental to maximize transformation efficiency.

=> s tomato and feeder  
L3 27 TOMATO AND FEEDER

=> s l3 and agrobacter?  
L4 12 L3 AND AGROBACTER?

=> dup rem l4  
PROCESSING COMPLETED FOR L4  
L5 6 DUP REM L4 (6 DUPLICATES REMOVED)

=> d 1-6 ti

L5 ANSWER 1 OF 6 AGRICOLA  
TI **Agrobacterium**-mediated transformation of citrange: factors affecting transformation and regeneration.

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
TI Transformation and foreign gene expression with plant species

L5 ANSWER 3 OF 6 AGRICOLA DUPLICATE 2  
TI Re-evaluation of conditions for plant regeneration and **Agrobacterium**-mediated transformation from **tomato** (Lycopersicon esculentum).

L5 ANSWER 4 OF 6 AGRICOLA DUPLICATE 3  
TI Factors influencing transformation frequency of **tomato** (Lycopersicon esculentum).

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Method and plasmid for high-efficiency transformation of and foreign gene expression in plants



L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4  
TI **Agrobacterium**-transformed **tomato** cells replace the  
hormone requirement for growth of **tomato** leaf protoplasts

=> d 5 ab

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS  
AB Method and plasmid for high-efficiency transformation of plant cells are provided. Plasmid pPMG 85 was constructed contg. the aroA gene fused to mannopine synthase gene promoter and tml terminator, pRiA4T-derived left border T-DNA, and kanamycin-resistance gene. The plasmid was transferred from its Escherichia coli host to **Agrobacterium tumefaciens** strain 2760-587/85 on MG/L broth in presence of a mobilization plasmid-contg. E. coli. The resultant A. tumefaciens was cocultivated with cotyledon sections obtained from sterile **tomato** seedlings in **feeder** plates for 48 h. The cotyledon sections were then transferred to regeneration medium contg. carbenicillin, kanamycin, zeatin, myo-inositol, sucrose, Nitsch vitamins, and agar. About 80% of the regenerated shoots rooted on medium contg. kanamycin 50 mg/mL, >90% of which produced aroA protein (as detd. by western blot anal.).

=> d 5 so

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS  
SO Eur. Pat. Appl., 11 pp.  
CODEN: EPXXDW

=> d 5 pi

L5	ANSWER 5 OF 6	CAPLUS	COPYRIGHT 2002	ACS		
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	EP 249432	A2	19871216	EP 1987-305062	19870609	
	EP 249432	A3	19900207			
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	AU 8773351	A1	19871217	AU 1987-73351	19870525	
	JP 63068088	A2	19880326	JP 1987-142403	19870609	
	CN 87104202	A	19880309	CN 1987-104202	19870610	

=> d 4 ab

L5 ANSWER 4 OF 6 AGRICOLA DUPLICATE 3  
AB We developed an efficient procedure for transformation and regeneration of L. esculentum cv. MoneyMaker from cotyledon explants. The effect of two parameters on the transformation frequency was investigated in detail. The use of **feeder** layers during cocultivation proved to be critical. In addition, it was found that **Agrobacterium** strains harboring a L,L-succinamopine type helper plasmid yielded significantly higher transformation frequencies than those with octopine or nopaline type helper plasmids. The optimized protocol was used to obtain transformation frequencies averaging 9%. Of the plants produced approximately 80% proved to be diploid, of which 67% contained the transgene(s) on a single locus.

=> s duckweed or lemna or lemnaceae or spirodela or wolffiella  
L6 7392 DUCKWEED OR LEMNA OR LEMNACEAE OR SPIRODELA OR WOLFFIELLA

=> s l6 and agrobacter?  
L7 13 L6 AND AGROBACTER?

=> dup rem 17

PROCESSING COMPLETED FOR L7

L8 11 DUP REM L7 (2 DUPLICATES REMOVED)

=> d 1-11 ti

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Methods for functional analysis of **duckweed** nucleic acids by high throughput screening

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Immunoglobulin binding protein arrays in plant cells

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 1

TI Genetic transformation of **duckweed Lemna gibba** and **Lemna minor**

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI A transient transformation system for **duckweed** (*Wolffia columbiana*) using **Agrobacterium**-mediated gene transfer.

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Genetically engineered **duckweed**.

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Methods for the genetic transformation of **Lemnaceae** with **Agrobacterium tumefaciens**

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Transformation of **duckweed** (**Lemna**) plants with ballistic bombardment, electroporation, or **Agrobacterium** vectors

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Simple (bench-top) bioassays and the isolation of new chemically diverse antitumor and pesticidal agents from higher plants

L8 ANSWER 9 OF 11 AGRICOLA

DUPLICATE 2

TI Stable isotope techniques for the analysis of indole auxin metabolism in normal and mutant plants.

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI Phytochrome regulation of transcription: biochemical and genetic approaches

L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS

TI A blind comparison of simple bench-top bioassays and human tumor cell cytotoxicities as antitumor prescreens

=> d ab

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

AB Methods for high-throughput screening in **duckweed** are disclosed. In one aspect, these methods are used to identify nucleotide sequences encoding polypeptides of interest. In another aspect, these methods are used to identify nucleotide sequences that modulate the expression of a target nucleotide sequence. The methods combine the predictive benefits of screening in whole plants with the speed and efficiency of a high throughput system.

=> d so

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

SO PCT Int. Appl., 38 pp.  
CODEN: PIXXD2

=> d pi

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI WO 2002097433 A1 20021205 WO 2002-US16938 20020530  
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,  
FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,  
SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW,  
AM, AZ, BY, KG  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

=> d 3 so

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
SO In Vitro Cellular & Developmental Biology: Plant (2001), 37(3), 349-353  
CODEN: IVCPEO; ISSN: 1054-5476

=> d 3 ab

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
AB The authors developed efficient genetic transformation protocols for two  
species of **duckweed**, **Lemna gibba** (G3) and  
**Lemna minor** (8627 and 8744), using **Agrobacterium**  
-mediated gene transfer. Partially differentiated nodules were  
co-cultivated with **Agrobacterium tumefaciens** harboring a binary  
vector contg. .beta.-glucuronidase and nptII expression cassettes.  
Transformed cells were selected and allowed to grow into nodules in the  
presence of kanamycin. Transgenic **duckweed** fronds were  
regenerated from selected nodules. The authors demonstrated that  
transgenic **duckweed** could be regenerated within 3 mo, after  
**Agrobacterium**-mediated transformation of nodules. Furthermore,  
the authors developed a method for transforming L. minor 8627 in 6 wk.  
These transformation protocols will facilitate genetic engineering of  
**duckweed**, ideal plants for bioremediation and large-scale  
industrial prodn. of biomass and recombinant proteins.

=> d 3 so

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
SO In Vitro Cellular & Developmental Biology: Plant (2001), 37(3), 349-353  
CODEN: IVCPEO; ISSN: 1054-5476

=> d 3 au

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
AU Yamamoto, Yuri T.; Rajbhandari, Nirmala; Lin, Xiaohong; Bergmann, Ben A.;  
Nishimura, Yufuko; Stomp, Anne-Marie

=> d 4 so

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
SO Journal of Applied Botany, (August, 2001) Vol. 75, No. 3-4, pp. 107-111.  
print.  
ISSN: 0949-5460.

=> d 4 ab

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AB Since **duckweed** (**Lemnaceae** family) is a valuable target plant for various applications including waste water treatment and food purposes, the expression of homologous or heterologous proteins may offer an extended range of application. Therefore, the feasibility of transformation of *Wolffia columbiana* (**Lemnaceae**) by **Agrobacterium tumefaciens**-mediated gene transfer has been elucidated. Several methods were tested to increase the accessibility of the plant cells for the infecting **Agrobacterium tumefaciens** strain LBA4404, harboring p35SGUSINT : corundum- and gold particle-treatment, vacuum infiltration and disintegration of the fronds. The resulting overall transformation efficiency was higher than without any treatment, reaching an average of 3.9% of all fronds showing GUS staining. Induction of **Agrobacterium**'s vir genes by media conditions as well as the presence of 0.6 M mannitol during infection resulted in a clear increase of transformation efficiency. Max. approx. 30 %, average 15-20 % of fronds showing GUS staining were obtained both with corundum-treated as well as with vacuum infiltrated fronds, but transformation pattern was different. Whereas in the former mainly epidermal and subepidermal cells were transformed, the latter showed, in addition, transformed inner frond cells, including the meristematic region. Disintegration of the fronds, followed by vacuum infiltration, led to whole GUS-stained areas of the frond fragments. The results as such and the observed transformation patterns will serve as a basis for offering good conditions either in the in vivo - or the in-vitro-regeneration of transgenic **duckweed** fronds.

=> d 4 au

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AU Boehm, Robert; Kruse, Cordula; Voeste, Dirk; Barth, Stefan; Schnabl, Heide  
(1)

=> d 5 pi

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
PI US 6040498 March 21, 2000

=> d 6 pi

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919497	A1	19990422	WO 1997-IL328	19971010
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9745703	A1	19990503	AU 1997-45703	19971010
CA 2312008	AA	19990422	CA 1998-2312008	19981008

WO 9919498 A1 19990422 WO 1998-IL487 19981008  
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
AU 9894572 A1 19990503 AU 1998-94572 19981008  
EP 1021552 A1 20000726 EP 1998-947760 19981008  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

=> d 7 pi

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI WO 9907210 A1 19990218 WO 1998-US16683 19980811  
W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
AU 9887799 A1 19990301 AU 1998-87799 19980811  
US 6040498 A 20000321 US 1998-132536 19980811  
EP 1037523 A1 20000927 EP 1998-939350 19980811  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI  
JP 2001513325 T2 20010904 JP 2000-506820 19980811

=> d 7 in

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS  
IN Stomp, Anne-Marie; Rajbhandari, Nirmala

=> d 8 ab

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS  
AB A review with 132 refs. Four simple (bench-top) bioassays are serving well for the detection and fractionation monitoring of new plant antitumor and pesticidal agents. These are: (1) lethality to the larvae of brine shrimp (*Artemia salina*); (2) the inhibition of crown gall tumors, induced by plasmid transfer and expression from *Agrobacterium tumefaciens*, on disks of potato (*Solanum tuberosum*) tubers; (3) the inhibition or stimulation of frond proliferation of **duckweed** (*Lemna minor*); and (4) lethality to the larvae of yellow fever mosquitoes (*Aedes aegyptii*). Since 1984, over 320 chem. diverse bioactive plant components have been isolated and characterized in our lab. by using these methods. Recently, bioactive compds. from the Meliaceae, Lauraceae, Euphorbiaceae, Laminaceae, and other plant families have been isolated, but our most exciting leads have been with the potent acetogenins from the Annonaceae; these compds. are powerful inhibitors of mitochondrial electron transport systems and of the NADH oxidase that is prevalent in the plasma membranes of tumorous cells. The consequence is ATP depletion, and this is esp. toxic to multiple drug resistant tumor cells and pesticide resistant insects that possess ATP-dependent xenobiotic efflux

systems. Structural activity relationship studies (in mitochondrial preps. and against mosquito larvae) help to define the optimum structural features. This paper has presented the chem. and biol. testing results of 207 plant components recently isolated using the simple bioassays described followed by cytotoxicity testing in a panel of six human tumor cell lines.

=> d 9 ab

L8 ANSWER 9 OF 11 AGRICOLA DUPLICATE 2

=> d 9 so

L8 ANSWER 9 OF 11 AGRICOLA DUPLICATE 2  
S0 Current plant science and biotechnology in agriculture, 1992. Vol. 13 p. 859-873  
Publisher: Dordrecht : Kluwer Academic Publishers.  
ISSN: 0924-1949

=> d 10 ab

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS  
AB Phytochrome-regulated expression of reporter genes attached to **Lemna gibba** phytochrome-regulated promoters was obsd. after **Agrobacterium**-mediated transformation of tobacco and biolistic transformation of **Lemna** fronds. The regulation of gene expression by phytochrome in *L. gibba* and *Arabidopsis* is reviewed.

=> s caffeine and agrobacter?

L9 5 CAFFEINE AND AGROBACTER?

=> dup rem l9

PROCESSING COMPLETED FOR L9

L10 5 DUP REM L9 (0 DUPLICATES REMOVED)

=> d 1-5 it

L10 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
IT Major Concepts  
Horticulture (Agriculture); Methods and Techniques; Molecular Genetics (Biochemistry and Molecular Biophysics)  
IT Chemicals & Biochemicals  
DNA: molecular phylogeny, sequence data  
IT Methods & Equipment  
**Agrobacterium**-mediated transformation: gene transfer method  
IT Miscellaneous Descriptors  
genetic engineering  
ORGN Super Taxa  
Rhizobiaceae: Gram-Negative Aerobic Rods and Cocci, Eubacteria, Bacteria, Microorganisms; Rubiaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae  
ORGN Organism Name  
**Agrobacterium** (Rhizobiaceae): gene vector; *Coffea arabica* [coffee] (Rubiaceae); *Coffea canephora* (Rubiaceae)  
ORGN Organism Superterms  
Angiosperms; Bacteria; Dicots; Eubacteria; Microorganisms; Plants; Spermatophytes; Vascular Plants

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS  
IT Gene, microbial  
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU

(Biological use, unclassified); BIOL (Biological study); PROC (Process);  
 USES (Uses)  
 (GUS; transgenic coffee plants via **Agrobacterium**-mediated  
 callus transformation)

IT Gene, plant  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BUU  
 (Biological use, unclassified); BIOL (Biological study); PROC (Process);  
 USES (Uses)  
 (bar; transgenic coffee plants via **Agrobacterium**-mediated  
 callus transformation)

IT Plant tissue  
 (callus; transgenic coffee plants via **Agrobacterium**-mediated  
 callus transformation)

IT Gene, microbial  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BUU  
 (Biological use, unclassified); BIOL (Biological study); PROC (Process);  
 USES (Uses)  
 (hpt; transgenic coffee plants via **Agrobacterium**-mediated  
 callus transformation)

IT Gene, microbial  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BUU  
 (Biological use, unclassified); BIOL (Biological study); PROC (Process);  
 USES (Uses)  
 (nptII; transgenic coffee plants via **Agrobacterium**-mediated  
 callus transformation)

IT **Agrobacterium**  
**Agrobacterium tumefaciens**  
 Coffee (Coffea)  
 Coffee (Coffea arabica)  
 Coffee (Coffea canephora)  
 Coffee (Coffea dewevrei)  
 Coffee (Coffea liberica)  
 (transgenic coffee plants via **Agrobacterium**-mediated callus  
 transformation)

IT Transgene  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BUU  
 (Biological use, unclassified); BIOL (Biological study); PROC (Process);  
 USES (Uses)  
 (transgenic coffee plants via **Agrobacterium**-mediated callus  
 transformation)

IT 111069-93-3, Phosphinothricin acetyl transferase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (BAR gene for; transgenic coffee plants via **Agrobacterium**  
 -mediated callus transformation)

IT 9001-45-0, .beta.-Glucuronidase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (GUS gene for; transgenic coffee plants via **Agrobacterium**  
 -mediated callus transformation)

IT 88361-67-5  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (HPT gene for; transgenic coffee plants via **Agrobacterium**  
 -mediated callus transformation)

IT 1404-04-2, Neomycin 6379-56-2, Hygromycin  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gene conferring resistance to; transgenic coffee plants via  
**Agrobacterium**-mediated callus transformation)

IT 155215-94-4, **Caffeine** synthase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gene for; transgenic coffee plants via **Agrobacterium**  
 -mediated callus transformation)

IT 53362-84-8, Neomycin phosphotransferase II  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (nptII gene for; transgenic coffee plants via **Agrobacterium**  
 -mediated callus transformation)

IT 35597-43-4, Bialaphos

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(resistance to, BAR gene for; transgenic coffee plants via  
**Agrobacterium**-mediated callus transformation)

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

- IT Duckweed (*Lemna gibba*)  
(Hurfeish; methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**)
- IT Antibiotic resistance  
Herbicide resistance  
(Lemnaceae exhibiting; methods for the genetic transformation of  
Lemnaceae with **Agrobacterium tumefaciens**)
- IT Materials  
(biochems., prodn. by lemnaceae; methods for the genetic transformation  
of Lemnaceae with **Agrobacterium tumefaciens**)
- IT Plant tissue  
(callus, plant regeneration from; methods for the genetic  
transformation of Lemnaceae with **Agrobacterium tumefaciens**)
- IT Dicotyledon (Magnoliopsida)  
Solanaceae  
Tobacco  
(cell suspension used in booster medium; methods for the genetic  
transformation of Lemnaceae with **Agrobacterium tumefaciens**)
- IT Culture media  
(enhancement of **Agrobacterium** virulence with; methods for the  
genetic transformation of Lemnaceae with **Agrobacterium**  
**tumefaciens**)
- IT Regeneration, plant  
(from callus; methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**)
- IT Metabolism, plant  
(inhibitors of, use as selecting agents in growth medium; methods for  
the genetic transformation of Lemnaceae with **Agrobacterium**  
**tumefaciens**)
- IT Plant tissue  
(meristem, targeted transformation of; methods for the genetic  
transformation of Lemnaceae with **Agrobacterium tumefaciens**)
- IT **Agrobacterium**  
Duckweed (*Lemna*)  
Genetic engineering  
Lemnaceae  
Spirodela  
Transformation, genetic  
Wolffia  
(methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**)
- IT Pigments, biological  
(prodn. by lemnaceae; methods for the genetic transformation of  
Lemnaceae with **Agrobacterium tumefaciens**)
- IT Alkaloids, preparation  
Carbohydrates, preparation  
Lipids, preparation  
Proteins, general, preparation  
Vitamins  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP  
(Preparation)  
(prodn. by lemnaceae; methods for the genetic transformation of  
Lemnaceae with **Agrobacterium tumefaciens**)
- IT Spirodela oligorrhiza  
(strain 8717; methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**)
- IT **Agrobacterium tumefaciens**  
(strains EHA105, EHA101, GVE3103, LBA4404, and C58; methods for the  
genetic transformation of Lemnaceae with **Agrobacterium**  
**tumefaciens**)



IT Antibiotics  
 Herbicides  
 (use as selecting agents in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT Plant tissue culture  
 (use in plant regeneration from callus; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT Hormones, plant  
 Minerals, biological studies  
 Organic compounds, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (used in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT Filtration  
 (vacuum filtration, use in transformation; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT Plant tissue  
 (wound, targeted transformation of; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT 77182-82-2, BASTA  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (20, Lemnaceae with resistance to; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT 8063-07-8, Kanamycin  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (Lemnaceae with resistance to; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT 57-50-1, Sucrose, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (less than 1.5% soln. used in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

IT 58-08-2, **Caffeine**, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (used in booster medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium tumefaciens**)

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

IT **Agrobacterium tumefaciens**  
 Rhizobium fredii  
 (cAMP receptor protein of, purifn. and characterization of)

IT Kinetics of dissociation  
 (of cAMP from CRP proteins of bacteria)

IT Molecular association  
 (of cAMP with CRP protein of bacteria, kinetics of)

IT Ribonucleic acid formation factors  
 RL: BIOL (Biological study)  
 (CAP (catabolite gene activator protein), of **Agrobacterium tumefaciens** and Rhizobium fredii, purifn. and characterization of)

IT Nucleotides, biological studies  
 RL: BIOL (Biological study)  
 (cyclic, cAMP receptor protein of bacteria inhibition by)

IT Cations  
 (divalent, cAMP receptor protein of **Agrobacterium tumefaciens** and Rhizobium fredii regulation by)

IT 60-92-4  
 RL: BIOL (Biological study)  
 (CRP proteins of **Agrobacterium tumefaciens** and Rhizobium fredii binding of)

IT 58-08-2, **Caffeine**, biological studies 58-55-9, Theophylline, biological studies 73-24-5D, Adenine, nucleotides  
 RL: BIOL (Biological study)  
 (cAMP receptor protein of bacteria inhibition by)

IT 58-61-7, Adenosine, biological studies 73-24-5, Adenine, biological studies  
RL: BIOL (Biological study)  
(cAMP receptor protein of bacteria stimulation by)

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

IT Light, ultraviolet, biological effects  
(damage by mechanisms of **Agrobacterium tumefaciens** recovery from)

IT **Agrobacterium**  
(tumefaciens, reactivation of)

=> ti

TI IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

<-----User Break----->

=> d 1-5 ti

L10 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Biotechnological applications for the improvement of coffee (*Coffea Arabica* L.

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS

TI Transgenic coffee plants via **Agrobacterium**-mediated callus transformation

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

TI Methods for the genetic transformation of Lemnaceae with  
**Agrobacterium tumefaciens**

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

TI Partial purification and characterization of cyclic AMP receptor protein from **Agrobacterium tumefaciens** C58 and *Rhizobium fredii* 191

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

TI Ultraviolet repair capabilities of **Agrobacterium tumefaciens**

=> d 3 pi

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919497	A1	19990422	WO 1997-IL328	19971010
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9745703	A1	19990503	AU 1997-45703	19971010
CA 2312008	AA	19990422	CA 1998-2312008	19981008
WO 9919498	A1	19990422	WO 1998-IL487	19981008
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,				

TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9894572 A1 19990503 AU 1998-94572 19981008  
 EP 1021552 A1 20000726 EP 1998-947760 19981008  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

=> d 4 ab

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

AB Purifn. and characterization of cAMP receptor proteins (CRP) from A. tumefaciens and R. fredii are described. Effects of divalent cations, nucleotides, temp., and pH were detd. **Caffeine** and theophylline inhibited CRP of A. tumefaciens. Kinetics of cAMP assocn. with and dissocn. from CRP were reported. Bacterial physiol. is considered.

=> d 4 so

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

SO Proceedings of the Malaysian Biochemical Society Conference (1989), 14th, 67-71  
 CODEN: PMBCDR; ISSN: 0126-9208

=> d 5 ab

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

AB A. tumefaciens possessed many of the uv repair mechanisms that are known to occur in Escherichia coli. Pos. results were obtained for photoreactivation, dark reactivation, and host-cell reactivation. Host-cell reactivation of A. tumefaciens was demonstrated by employing a lytic phage. In the presence of **caffeine**, the survival of virus after uv treatment was much lower than in the controls. Attempts to demonstrate uv reactivation of the virus were neg. It was hypothesized that host-cell reactivation and uv reactivation are accomplished, at least in part, by different enzyme systems.

=> s feeder and transform?

L11 466 FEEDER AND TRANSFORM?

=> s l11 and agrobac?

L12 38 L11 AND AGROBAC?

=> dup rem l12

PROCESSING COMPLETED FOR L12

L13 21 DUP REM L12 (17 DUPLICATES REMOVED)

=> d 1-10 ti

L13 ANSWER 1 OF 21 AGRICOLA

DUPLICATE 1

TI Factors that influence **Agrobacterium** rhizogenes-mediated **transformation** of broccoli (Brassica oleracea L. var. italica).

L13 ANSWER 2 OF 21 AGRICOLA

DUPLICATE 2

TI Factors affecting **Agrobacterium** tumefaciens-mediated **transformation** of peppermint.

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TI Factors affecting **Agrobacterium** tumefaciens-mediated **transformation** of peppermint.

L13 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 3  
 TI **Agrobacterium** rhizogenes-mediated **transformation** of  
 broccoli (Brassica oleracea L. var. italica) with an antisense  
 1-aminocyclopropane-1-carboxylic acid oxidase gene

L13 ANSWER 5 OF 21 AGRICOLA DUPLICATE 4  
 TI **Agrobacterium**-mediated **transformation** of citrange:  
 factors affecting **transformation** and regeneration.

L13 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI High plant regeneration, genetic stability of regenerants, and genetic  
**transformation** of herbicide resistance gene (Bar) in Chinese  
 cabbage (Brassica campestris ssp. pekinensis)

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI Preparation of transgenic plants by infection with **Agrobacterium**

L13 ANSWER 8 OF 21 AGRICOLA DUPLICATE 5  
 TI Genetic **transformation** of lime (Citrus aurantifolia Swing.):  
 factors affecting **transformation** and regeneration.

L13 ANSWER 9 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 TI Factors influencing **Agrobacterium**-mediated  
**transformation** of Brassica rapa L.

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6  
 TI **Transformation** and foreign gene expression with plant species

=> d 7 so

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF

=> d 7 pi

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
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 PI JP 09252674 A2 19970930 JP 1996-70584 19960326

=> d 10 so

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6  
 SO U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 404, 723, abandoned.  
 CODEN: USXXAM

=> d 10 pi

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
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 PI US 5565347 A 19961015 US 1993-113985 19930830

=> d 10 ab

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6  
 AB Plant species are produced by cocultivation **transformation** of  
 cotyledon shoot cultures with a foreign gene followed by regeneration of

plants from **transformed** cells, thereby producing plants capable of expressing the foreign gene. Particularly, tomato shoot cultures are employed and are **transformed** employing a manipulated **Agrobacterium transformation** system, followed by regeneration of the **transformed** plant tissue into plants. Injured cotyledon tissue as a source of cells for **transformation** offers several advantages over other tissue sources, such as leaf and stem, including uniformity of tissue and a source of sterile tissue. Cotyledon tissue is preferably preincubated with medium conditioned with a plant (Nicotiana) cell **feeder** culture. Thus, a binary vector plasmid, pPMG85/87, contg. 3 chimeric genes, was introduced into a binary disarmed strain of *A. tumefaciens*. Two of the genes code for for neomycin phosphotransferase (APH3'II) which confers resistance to the antibiotic kanamycin; one of the genes is spliced to the octopine synthase promoter and the other to the mannopine synthase promoter. The 2 APH3'II genes were engineered into the T-DNA to allow for direct selection of **transformed** tissue. The third chimeric gene fusion contains a mutant *aroA* gene isolated from *Salmonella typhimurium*, which confers tolerance to the herbicide glyphosate, spliced to the mannopine synthase promoter. The rapid and efficient tomato **transformation** /regeneration system yielded >85% explants on kanamycin selective medium and expressing the *aroA* protein. Glyphosate spray expts. confirmed that the resulting tomato plants were resistant to 0175 lbs/acre glyphosate.

=> d 11-21 ti

- L13 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI Hairy root culture for taxol production, using **transformed** *Taxus*.
- L13 ANSWER 12 OF 21 AGRICOLA DUPLICATE 7  
 TI Re-evaluation of conditions for plant regeneration and **Agrobacterium**-mediated **transformation** from tomato (*Lycopersicon esculentum*).
- L13 ANSWER 13 OF 21 AGRICOLA DUPLICATE 8  
 TI Factors influencing **transformation** frequency of tomato (*Lycopersicon esculentum*).
- L13 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 9  
 TI Factors influencing **Agrobacterium tumefaciens** mediated **transformation** and expression of kanamycin resistance in pickling cucumber
- L13 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 10  
 TI **Transformation** of *Brassica napus* L. (oilseed rape) using **Agrobacterium tumefaciens** and **Agrobacterium rhizogenes** - a comparison
- L13 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI High efficiency **transformation** of *Brassica napus* using **Agrobacterium** vectors
- L13 ANSWER 17 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 TI GENETIC **TRANSFORMATION** OF POTATO *SOLANUM-TUBEROSUM* AN EFFICIENT METHOD TO OBTAIN TRANSGENIC PLANTS.
- L13 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI Genetic **transformation** of potato (*Solanum tuberosum*): an efficient method to obtain transgenic plants
- L13 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2002 ACS  
 TI Method and plasmid for high-efficiency **transformation** of and foreign gene expression in plants

L13 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11  
TI **Agrobacterium-transformed** tomato cells replace the  
hormone requirement for growth of tomato leaf protoplasts

L13 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 12  
TI In vitro **transformation** of petunia cells by an improved method  
of cocultivation with A. tumefaciens strains

=> d 20 ab

L13 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11  
AB The abilities of 3 cloned Lycopersicon pennellii cell lines,  
**transformed** by an octopine strain of A. tumefaciens A6, to replace  
the hormonal requirement for growth of nontransformed L. esculentum leaf  
protoplasts was studied. By employing a new protoplast **feeder**  
assay system, variability in the **transformed** phenotypes of the 3  
lines was detected which was not evident in any assay of callus growth.  
At high enough densities, all 3 lines completely replaced the auxin and  
cytokinin requirements for growth of nontransformed L. esculentum cells.  
One **transformed** line, however, replaced the hormonal  
requirements of nontransformed cells at a much lower cell d. than the  
other 2 lines. Apparently, the differing abilities of the 3 tumor lines  
to substitute for hormones reflect differences in the activities of the  
auxin and cytokinin-synthesizing systems in the individual lines. With  
the **feeder** cell assay, clonal heterogeneity in  
**transformed** phenotypes can be quant. measured to provide a new  
means to examine the physiol. alterations initiated by the incorporation  
of T-DNA into a plant cell genome. Under the conditions described, high  
frequency division of nontransformed L. esculentum protoplasts can be  
obtained in the absence of exogenously supplied hormones.

=> s spirodela and 8717

L14 1 SPIRODELA AND 8717

=> d ti

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
TI Methods for the genetic transformation of Lemnaceae with Agrobacterium  
tumefaciens

=> d pi

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919497	A1	19990422	WO 1997-IL328	19971010
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9745703	A1	19990503	AU 1997-45703	19971010
CA 2312008	AA	19990422	CA 1998-2312008	19981008
WO 9919498	A1	19990422	WO 1998-IL487	19981008
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,			

TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9894572 A1 19990503 AU 1998-94572 19981008  
 EP 1021552 A1 20000726 EP 1998-947760 19981008  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

=> s 8717 and (duckweed or lemnaceae)  
 L15 1 8717 AND (DUCKWEED OR LEMNACEAE)

=> d ti

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
 TI Methods for the genetic transformation of **Lemnaceae** with  
 Agrobacterium tumefaciens

=> d pi

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9919497	A1	19990422	WO 1997-IL328	19971010
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9745703	A1	19990503	AU 1997-45703	19971010
CA 2312008	AA	19990422	CA 1998-2312008	19981008
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AU 9894572	A1	19990503	AU 1998-94572	19981008
EP 1021552	A1	20000726	EP 1998-947760	19981008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUIDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
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NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUIDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN
NEWS	36	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	37	Dec 17	TOXCENTER enhanced with additional content
NEWS	38	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	39	Dec 30	ISMEC no longer available
NEWS EXPRESS			October 14 CURRENT WINDOWS VERSION IS V6.01, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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=> file agricola		
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	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1970 TO 11 Dec 2002 (20021211/ED)

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=> s ((stachel, s?) or (stachel s?))/au
      9 STACHEL, S?/AU
      9 STACHEL S?/AU
L1      9 ((STACHEL, S?) OR (STACHEL S?))/AU
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=> d 1-9 ti

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L1 ANSWER 1 OF 9 AGRICOLA
TI A nontransformable Triticum monococcum monocotyledonous culture produces
the potent Agrobacterium vir-inducing compound ethyl ferulate.

L1 ANSWER 2 OF 9 AGRICOLA
TI Characterization of Agrobacterium tumefaciens virulence proteins induced
by the plant factor acetosyringone.

L1 ANSWER 3 OF 9 AGRICOLA
TI Analysis of Agrobacterium tumefaciens virulence mutants in leaf discs.

L1 ANSWER 4 OF 9 AGRICOLA
TI Site-specific Nick in the T-DNA border sequence as a result of
Agrobacterium vir gene expression.

L1 ANSWER 5 OF 9 AGRICOLA
TI Identification of the signal molecules produced by wounded plant cells
that activate T-DNA transfer in Agrobacterium tumefaciens.

L1 ANSWER 6 OF 9 AGRICOLA
TI A gene essential for Agrobacterium virulence is homologous to a family of
positive regulatory loci.

L1 ANSWER 7 OF 9 AGRICOLA
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